

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (cancelled)

Claim 2. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12, wherein said sensor is a temperature sensor and the ambient condition is temperature.

Claim 3. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12, wherein said sensor is a pH sensor and the ambient condition is pH.

Claim 4. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12, wherein said sensor is configured to determine the presence of a biological material.

Claim 5. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12, wherein said sensor is a configured to sense the presence of a pre-determined liquid.

Claim 6. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12, wherein said body is a component of a joint prosthesis selected from the group of a hip prosthesis, a knee prosthesis, a shoulder prosthesis and an elbow prosthesis.

Claim 7. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12,
wherein said ~~transmitter transmission element~~ includes an alarm.

Claim 8. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12,
wherein said ~~transmission element~~ includes a transmitter is supported by said body and
~~configured to transmit a signal to a receiver located outside the joint indicative of said~~
~~condition signal.~~

Claim 9. (currently amended) The ~~joint endoprosthesis~~ system of claim 8, wherein
said ~~transmitter transmission element~~ includes an antenna and a power source providing
power to said antenna.

Claim 10. (currently amended) The ~~joint endoprosthesis~~ system of claim + 12,
further comprising a power source supported by said body and connected to provide
power to said sensor and said ~~transmitter communication element~~.

Claim 11. (currently amended) The ~~joint endoprosthesis~~ system of claim 10,
wherein said power source is a passive power source.

Claim 12. (previously presented) A system for sensing a condition within a
mammalian joint comprising:

 an endoprosthesis including a body configured to replace a portion of the joint,
the body including a wire channel;

a sensor supported by said body, said sensor adapted to sense an ambient condition of the mammalian joint and to generate a condition signal indicative of the sensed condition;

a transmitter connected to said sensor through said wire channel to receive said condition signal and operable to transmit a transmission signal outside the joint indicative of said condition signal;

a receiver disposed outside the joint for receiving said transmission signal; and
translation circuitry for translating said transmission signal to a human sensible signal.

Claim 13. (original) The system for determining a condition within a mammalian joint of claim 12 wherein said translation circuitry includes an alarm.

Claim 14. (original) The system for determining a condition within a mammalian joint of claim 13, wherein said alarm is configured to produce an audible signal.

Claim 15. (original) The system for determining a condition within a mammalian joint of claim 13, wherein said alarm is configured to produce a vibration.

Claim 16. (original) The system for sensing a condition within a mammalian joint of claim 12, wherein said translation circuitry includes a display configured to produce a visually sensible signal.

Claim 17. (previously presented) A method for determining a condition within a mammalian joint comprising the steps of:

introducing a sensor within the joint, the sensor adapted to sense a temperature and to generate a sensor signal indicative of the temperature;

coupling the sensor with a transmission element operable to transmit an information signal outside the joint in response to the sensor signal;

sensing the ambient condition within the joint;

transmitting the information signal;

analyzing the information signal to determine when a temperature within the joint exceeds a predetermined setpoint; and

generating a human sensible warning signal in response to the determination that the temperature within the joint exceeds a predetermined setpoint.

Claim 18. (cancelled)

Claim 19. (previously presented) The method for determining a condition within a mammalian joint of claim 17, wherein introducing a sensor within the joint comprises:

placing the sensor within a ball portion of a prosthetic device used in a ball and socket joint.

Claim 20. (previously presented) The method for determining a condition within a mammalian joint of claim 19, further comprising:

placing a second sensor within a socket portion of a prosthetic device used in the ball and socket joint.

Claim 21. (previously presented) The method of claim 17, wherein coupling the sensor with a transmission element comprises:

connecting the sensor to the transmitter through a wire channel in a prosthetic device.